

# BIT-RATE GUIDED FREQUENCY WEIGHTING MATRIX SELECTION

## ABSTRACT OF THE DISCLOSURE

A system and method for generating a frequency weighted (FW) matrix for use in a Fine-Granularity-Scalability (FGS) video coding system. The system comprises: a system for plotting the average discrete cosine transform (DCT) residuals versus the zigzag DCT scan line locations for a sample video frame encoded both at a predetermined base layer bit-rate and at approximately three times the predetermined base layer bit-rate; a system for generating the difference plot of DCT residuals versus the zigzag DCT scan line locations for the video frame encoded at both the predetermined base layer bit-rate and at approximately three times the predetermined base layer bit-rate; and a system for matching and normalizing a staircase curve to the average difference plot, wherein the staircase curve values can be further mapped into the weights for the FW matrix.